

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
70101	Quick Release Cargo Basket Installation	4 ✓
70102	Quick Release Mounting Provisions Installation	0 ✓
ICA698.90	Instructions for Continued Airworthiness	2 ✓
FMS701.90	Flight Manual Supplement	3 ✓
SI698.91	Service Instructions – Sliding Door Modification	0 ✓
FABRICATION DOCUMENTS		
DCL698-1	Document Control List for Quick Release Cargo Basket	2 ✓
DCL698-2	Document Control List for Beams	4 ✓
APPROVAL:	ORIGINAL DATE: 10 May, 2006	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	REVISION DATE: 27 October, 2011	
	SHEET 1 OF 1	Bell 407 Quick Release Cargo Basket Installation
	<div>DCL701</div> <div>Rev. 4</div>	

emailed

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE701 Initial Issue Date: 25 May, 2006 Revision: 3 Revision Date: 25 March, 2009 Approval No.: SH00-48 Delegation No.: 290M Delegate Name: E. Burgoin Classification of Designee: Employer: AERO Design Ltd.	
Aircraft Mfr: Bell Aircraft Model: 407 Registration: All Eligible		Model Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	
LIST OF APPROVED REPORTS AND DATA			
Document Number		Document Title	Compliance Status
DCL701	Revision 3	Document Control List and all documents referred to therein	
70101	Revision 3	Quick Release Cargo Basket Installation	
70102	Revision 0	Quick Release Mounting Provisions Installation	
		DATA APPROVED BY TRANSPORT CANADA	
FMS701.90	Revision 2	Flight Manual Supplement	
CERTIFICATION UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIRMENTS.			
I THEREFORE <input type="checkbox"/> RECOMMEND FOR APPROVAL OF THESE DATA <input checked="" type="checkbox"/> APPROVE THESE DATA			
 E. Burgoin, DAR 290M			

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE	BJC	JULY 15/08

NOTES:

- EXTERNAL ATTACHMENT PROVISIONS INSTALLED IN ACCORDANCE WITH DRAWING 60602 IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.
- HIGH SKID GEAR INSTALLATION IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.
- BEAMS (73030-01 AND 73031-01) ARE USED FOR INSTALLATION OF EQUIPMENT ON BOTH LEFT AND RIGHT SIDES. PROVISIONS FOR INSTALLING THE QUICK RELEASE CARGO BASKET (69810-01) ON THE RIGHT SIDE IS PROVIDED.

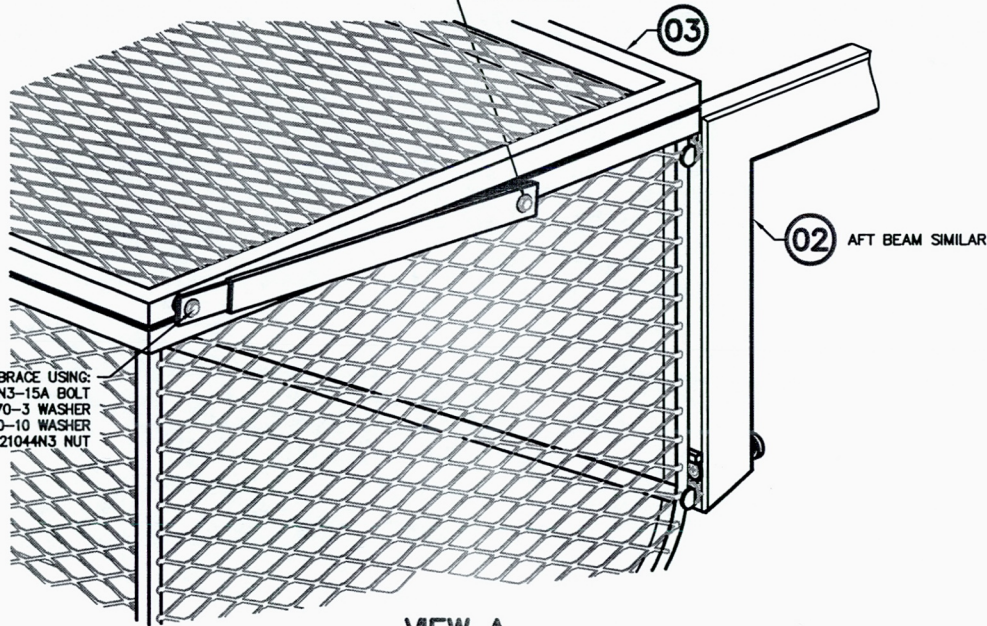
WEIGHT AND BALANCE

ITEM	DESCRIPTION	WEIGHT (LB)	LONGITUDINAL		LATERAL	
			ARM (IN)	MOMENT (LB-IN)	ARM (IN)	MOMENT (LB-IN)
02	FORWARD BEAM	10.1	76.4	771.6	10.9	110.1
03	AFT BEAM	9.8	151.4	1483.7	12.6	123.5
01	MOUNTING PROVISIONS INSTALLATION	19.9	113.3	2255.3	11.7	233.6

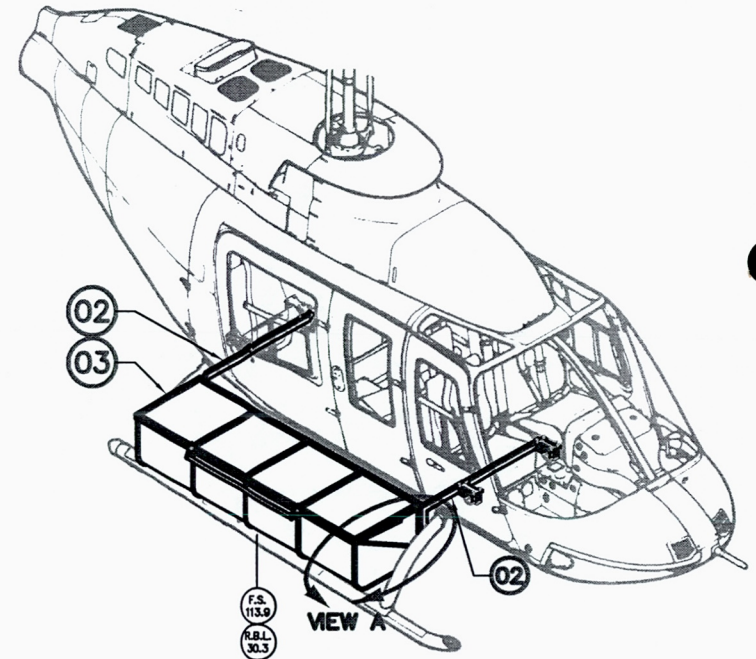
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	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2° X.XX ±0.03 X.X ±0.1				BELL 407 QUICK RELEASE MOUNTING PROVISIONS PROVISIONS INSTALLATION					
					NOT TO SCALE		DWG. SIZE	DWG. NO.	REV.	
					SHEET 2 OF 2		A4	70102	0	

IF NECESSARY, INSTALL LID BRACE USING:
AN3-17A BOLT
AN970-3 WASHER
AN960-10 WASHER
MS21044N3 NUT

IF NECESSARY, INSTALL LID BRACE USING:
AN3-15A BOLT
AN970-3 WASHER
AN960-10 WASHER
MS21044N3 NUT



VIEW A
TYPICAL FORE AND AFT



01 INSTALLATION

1	69810-01	03	CARGO BASKET ASSEMBLY
1	70102-01	02	PROVISIONS INSTALLATION
	70101-01	01	INSTALLATION
QTY.	PART NO.	ITEM	DESCRIPTION
LIST OF MATERIALS			

APPROVALS	DATE
DRAWN: JEFF CLARKE	17 APR 2006
CHECKED: E. BURGAIN	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES.
TOLERANCES ON:
DECIMALS ANGLES
X.XXX ± 0.010 $\pm 1/2^\circ$
X.XX ± 0.03
X.X ± 0.1

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AERO DESIGN LTD.

CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M
2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7
tel: (403) 250-8027 fax: (403) 250-8333 aerodesign@telusplanet.net

BELL 407 QUICK RELEASE CARGO BASKET INSTALLATION

NOT TO SCALE	DWG. SIZE	DWG. NO.	REV.
SHEET 1 OF 2	A4	70101	3

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE	BJC	APR 17/06
1	UPPER BEAM ATTACHMENT CHANGED	BJC	NOV 09/06
2	ADD ELIGIBLE BEAM ASSEMBLIES	BJC	JUNE 29/07
3	DRAWING RESIZED, PROVISIONS MOVED TO DRAWING 70102	BJC	JULY 15/08

NOTES:




- EXTERNAL ATTACHMENT PROVISIONS INSTALLED IN ACCORDANCE WITH DRAWING 60602 IS MANDATORY PREREQUISITE FOR THIS INSTALLATION. QUICK RELEASE MOUNTING PROVISIONS INSTALLED IN ACCORDANCE WITH DRAWING 70102 IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.
- HIGH SKID GEAR INSTALLATION IS MANDATORY PREREQUISITE FOR THIS INSTALLATION.
- SEE FLIGHT MANUAL SUPPLEMENT, FMS701.90, FOR LIMITATIONS ON HELICOPTER OPERATIONS WITH CARGO BASKET INSTALLED.
- SEE INSTRUCTIONS FOR CONTINUED AIRWORTHINESS, ICA698.90, FOR MAINTENANCE INFORMATION.
- BEAMS (73030-01 AND 73031-01) ARE USED FOR INSTALLATION OF EQUIPMENT ON BOTH LEFT AND RIGHT SIDES. PROVISIONS FOR INSTALLING THE QUICK RELEASE CARGO BASKET (69810-01) ON THE RIGHT SIDE IS PROVIDED.

WEIGHT AND BALANCE

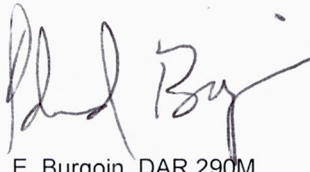
ITEM	DESCRIPTION	WEIGHT (LB)	LONGITUDINAL		LATERAL	
			ARM (IN)	MOMENT (LB-IN)	ARM (IN)	MOMENT (LB-IN)
01	CARGO BASKET INSTALLATION (CARGO BASKET AND MOUNTING PROVISIONS)	64.9	113.9	7390	30.3	1966
	CARGO	200 MAX	114.1	22820	38.5	7700

APPROVALS		DATE		AERO DESIGN LTD. CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M 2013 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 6R7 tel: (403) 250-8027 fax: (403) 250-8333 aerodesign@telusplanet.net			
DRAWN: JEFF CLARKE		17 APR 2006					
CHECKED: E. BURGOIN							
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2" X.XX ±0.03 X.X ±0.1				BELL 407 QUICK RELEASE CARGO BASKET INSTALLATION			
NOT TO SCALE		DWG. SIZE	DWG. NO.	REV.			
SHEET 2 OF 2		A4	70101	3			

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ENGINEERING DOCUMENTS												
<table border="1"> <tr> <td colspan="2"> APPROVAL:  Transport Canada E. BURGOIN DAR 200M APPROVED By <i>[Signature]</i> App'd No. 5800-48 App'd Date 08 DEC 2000 Issue No. 6 Issue Date 30 JAN 2008 Revised 19 SEPT 2008 </td> <td> ORIGINAL DATE: 10 May, 2006 REVISION DATE: 23 September, 2008 </td> <td> AERO DESIGN LTD. 2013 – 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333 </td> </tr> <tr> <td colspan="2">SHEET 1 OF 1</td> <td> Bell 407 Quick Release Cargo Basket Installation </td> </tr> <tr> <td colspan="2"> DCL701 </td> <td> Rev. 2 </td> </tr> </table>			APPROVAL:  Transport Canada E. BURGOIN DAR 200M APPROVED By <i>[Signature]</i> App'd No. 5800-48 App'd Date 08 DEC 2000 Issue No. 6 Issue Date 30 JAN 2008 Revised 19 SEPT 2008		ORIGINAL DATE: 10 May, 2006 REVISION DATE: 23 September, 2008	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333	SHEET 1 OF 1		Bell 407 Quick Release Cargo Basket Installation	DCL701		Rev. 2
APPROVAL:  Transport Canada E. BURGOIN DAR 200M APPROVED By <i>[Signature]</i> App'd No. 5800-48 App'd Date 08 DEC 2000 Issue No. 6 Issue Date 30 JAN 2008 Revised 19 SEPT 2008		ORIGINAL DATE: 10 May, 2006 REVISION DATE: 23 September, 2008	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333									
SHEET 1 OF 1		Bell 407 Quick Release Cargo Basket Installation										
DCL701		Rev. 2										

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE701 Initial Issue Date: 25 May, 2006 Revision: 2 Revision Date: 23 September, 2008 Approval No.: SH00-48 Delegation No.: 290M Delegate Name: E. Burgoin Classification of Designee: Employer: AERO Design Ltd.	
Aircraft Mfr: Bell Aircraft Model: 407 Registration: All Eligible	Model Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>		
LIST OF APPROVED REPORTS AND DATA			
Document Number		Document Title	Compliance Status
DCL701 SI698.91	Revision 2 Revision 0	Document Control List and all documents referred to therein Service Instructions - Sliding Door Modification	
		DATA APPROVED BY TRANSPORT CANADA	
CERTIFICATION UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIREMENTS.			
I THEREFORE <input type="checkbox"/> RECOMMEND FOR APPROVAL OF THESE DATA <input checked="" type="checkbox"/> APPROVE THESE DATA			
 E. Burgoin, DAR 290M			

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ICA698.90	Instructions for Continued Airworthiness	1
FMS701.90	Flight Manual Supplement	1
FABRICATION DOCUMENTS		
DCL698-1	Document Control List for Quick Release Cargo Basket	1
DCL698-2	Document Control List for Beams	2
ENGINEERING DOCUMENTS		
APPROVAL:		
	ORIGINAL DATE: 10 May, 2006	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	REVISION DATE: 28 September, 2007	
	SHEET 1 OF 1	Bell 407 Quick Release Cargo Basket Installation
DCL701		Rev. <div style="font-size: 2em; text-align: center;">1</div>

BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET

Supplemental Type Certificate No. SH00-48

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Quick Release Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



Table of Contents

I	Limitations	3
II	Normal Procedures	3
III	Emergency Procedures	3
IV	Performance	3
V	Weight and Balance	4
VI	Installation / removal instructions	6

Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	05 May, 2006	None		

I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket is 200 lb. (90.9 kg).
2. Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
3. Maximum lateral or rearward speed limited to 25 KIAS.
4. Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
5. V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward and aft end of the basket to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

V WEIGHT AND BALANCE

1. The following weight and balance is for the low mounted quick release cargo basket configuration, installed in accordance with drawing 70101.

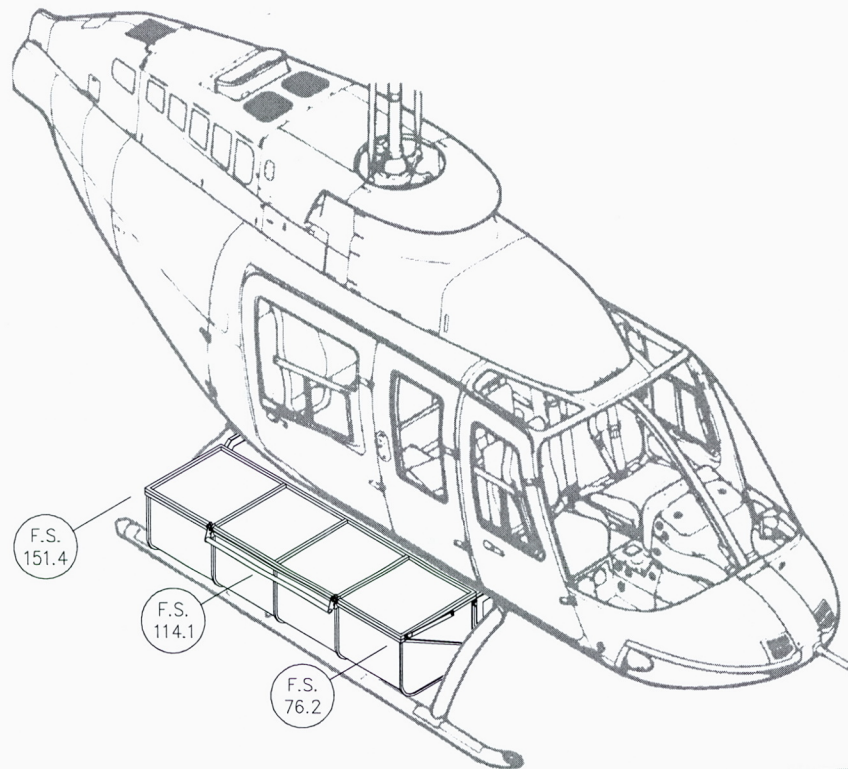


Figure 1 – Low Mounted Quick Release Cargo Basket Configuration

Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Cargo Basket Only ¹	45.0 lb	114.1 in	5134 in*lb	38.5 in	1733 in*lb
	20.4 kg	2898 mm	59 122 mm*kg	978 mm	19 949 mm*kg
Cargo ² (MAX)	200 lb	114.1 in	22 820 in*lb	38.5 in	7700 in*lb
	90.9 kg	2898 mm	263 467 mm*kg	978 mm	88 900 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft may be out of limits.

VI INSTALLATION / REMOVAL INSTRUCTIONS

The basket and beams are installed in accordance with drawing 70101. Removal of the basket leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket and weight and balance amendment is required when basket is installed or removed.

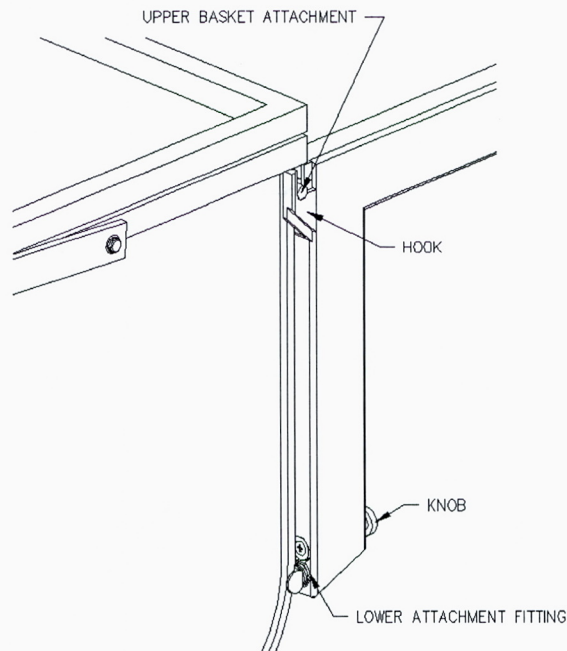


Figure 2 – Basket Attachment

1. Installation - Refer to Figure 2.
 1. Set basket upper attachment into hook on forward and aft beams.
 2. At forward end of basket, lift until lower attachment fitting can enter keyway. Push stop in and slide fitting down into keyway. Push down until locked. Repeat for aft end.
2. Removal - Refer to Figure 2.
 1. Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in hook on beam. Repeat for aft end.
 2. Lift basket off hooks and remove from helicopter.

1 November, 2007

Transport Canada
Aircraft Certification Division
11th Floor, Canada Place
9700 Jasper Avenue
Edmonton, Alberta
T5J 4E6

Attn: Jack Staal

Your File # : SH00-48

Our File # : Various

Re: Cargo Basket Approval Revisions

Jack,

Please find attached the following documents related to this project:

Supplemental Type Certificate (draft)

✓SH00-48 Issue 6

(High Quick Release Basket)

Document Control List

✓DCL766-1 Revision 0

Document Control List

✓DCL766-2 Revision 0

AE 100 Form

✓AE766-1 Revision 0

AE 100 Form

✓AE766-2 Revision 0

Compliance Program

✓CP766 Revision 0

Modification Approval Application Form

✓MOD766 Revision 0

Engineering Report

✓ER766.01 Revision 0

Test Plan

✓TP766.02 Revision 0

Instructions for Continued Airworthiness

✓ICA766.90 Revision 0

MSI 53 Review

Flight Manual Supplement (407)

✓FMS766.91 Revision 0

Flight Manual Supplement (206L)

✓FMS766.92 Revision 0

Cargo Basket Installation

✓76601 Revision 0

Cargo Basket Assembly

✓76610 Revision 0

Cargo Basket Body

✓76611 Revision 0

Basket Components - End Hoop Assembly

✓76621 Revision 0

Basket Comp. - Attach Hoop Assembly

✓76622 Revision 0

Basket Components - Hoop

✓76623 Revision 0

Basket Components - Placard

✓76625 Revision 0

Support Beams

✓76630 Revision 0

Handle Assembly

✓36255 Revision 1

Handle Bar Assembly

✓36261 Revision 3

Handle Bracket Assembly

✓36262 Revision 1

Handle Lever

✓36271 Revision 1

Basket Bracket

✓36272 Revision 1

Lid Bracket

✓36273 Revision 1

Bushing

✓36274 Revision 1

Bushing

✓36275 Revision 2

(407 Attachment Provisions)

Document Control List

AE100 Form

Block Fabrication

✓ DCL700 Revision 1
✓ AE700 Revision 1
✓ 60620 Revision 1

(Low Fixed Basket)

Document Control List

Document Control List

AE100 Form

Cargo Basket Installation (206L)

Support Beams (Pocketed Aluminum)

Support Beams (Steel)

Engineering Report - Pocketed Beams

Instructions for Continued Airworthiness

Flight Manual Supplement

Document Control List

AE100 Form

Cargo Basket Installation (407)

Flight Manual Supplement

✓ DCL492 Revision 6
✓ DCL492-1 Revision 1
✓ AE492 Revision 2
✓ 49201 Revision 3
✓ 49221 Revision 3
✓ 49222 Revision 2
✓ ER492.04 Revision 1
✓ ICA492.90 Revision 1
✓ FMS492.01 Revision 2
✓ DCL606 Revision 3
✓ AE606 Revision 2
60601 Revision 2
✓ FMS606.01 Revision 2

(Quick Release Basket Installation)

Document Control List

AE100 Form

Cargo Basket Installation (407)

Flight Manual Supplement

Document Control List

AE100 Form

Cargo Basket Installation (206L)

Flight Manual Supplement

✓ DCL701 Revision 1
✓ AE701 Revision 1
✓ 70101 Revision 2
✓ FMS701.90 Revision 1
✓ DCL702 Revision 1
✓ AE702 Revision 1
✓ 70201 Revision 2
✓ FMS702.90 Revision 1

(Quick Release Basket Fabrication)

Document Control List

AE100 Form

Cargo Basket Assembly

Basket Body Assembly

Basket Components - End Hoop

Basket Components - Aft Hoop

Instructions for Continued Airworthiness

Document Control List

AE100 Form

Forward Beam Fabrication

Aft Beam Fabrication

Engineering Report

✓ DCL698-1 Revision 1
✓ AE698-1 Revision 1
✓ 69810 Revision 2
✓ 69811 Revision 2
✓ 69821 Revision 1
✓ 69822 Revision 0
✓ ICA698.90 Revision 1
✓ DCL698-2 Revision 2
✓ AE698-2 Revision 1
✓ 69830 Revision 2
✓ 69831 Revision 2
✓ ER698.04 Revision 0

AERO DESIGN LTD.

2013 - 39 Avenue N.E., Calgary, Alberta, T2E 6R7

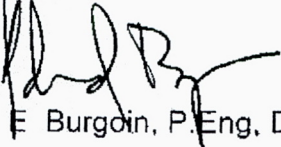
Tel 403-250-8027

Fax 403-250-8333

info@aerodesign.ca

Please note the request for a revision to the FAA STC after the Canadian approval is issued.

Regards,



E. Burgoin, P. Eng, DAR 290M

Encl.

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE701 Initial Issue Date: 25 May, 2006 Revision: 1 Revision Date: 1 November, 2007 Approval No.: SH00-48 Delegation No.: 290M Delegate Name: E. Burgoin Classification of Designee: Employer: AERO Design Ltd	
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DCL698-2	Document Control List for Beams	0
ENGINEERING DOCUMENTS		
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>APPROVAL:</p> <div style="border: 1px solid black; padding: 5px;"> <div style="display: inline-block; text-align: center;"> Transport Canada </div> <div style="display: inline-block; text-align: center;"> Transport Canada2 </div> </div> <p style="text-align: center;">AIRCRAFT CERTIFICATION DIVISION</p> <p style="text-align: center;">APPROVED</p> <p>Ely <i>[Signature]</i></p> <p>App'l No. <u>SH00-48</u></p> <p>App'l Date <u>02-12-08</u></p> <p>Issue No. <u>5</u></p> <p>Issue Date <u>06-06-09</u> <small>YY-MM-DD</small></p> </div> <div style="width: 40%;"> <p>ORIGINAL DATE: 10 May, 2006</p> <p>REVISION DATE:</p> </div> <div style="width: 30%;"> <p style="text-align: center;">AERO DESIGN LTD.</p> <p style="text-align: center;">2013 - 39th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333</p> </div> </div>		
SHEET 1 OF 1		Bell 407 Quick Release Cargo Basket Installation
DCL701		Rev. 0

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FMS701.90

BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the INSTALLATION of the AERO DESIGN QUICK RELEASE CARGO BASKET

Supplemental Type Certificate No. SH00-48

Sections I, II, III and IV of this document comprise the Transport Canada Approved sections of this Flight Manual Supplement. Compliance with Section I, Limitations, is mandatory.

Section V and any subsequent sections if present are Unapproved and are provided for information only.

The information and data contained in this Flight Manual Supplement supersede or supplement that contained in the basic Approved Flight Manual for the Bell 407 when fitted with the Quick Release Cargo Basket Installation. For limitations, procedures and performance not listed in this Flight Manual Supplement, refer to the Approved Flight Manual and other approved Flight Manual Supplements.



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05 May, 2006

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AERO DESIGN LTD.

FMS701.90

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II	Normal Procedures	3
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Record of Revisions

Revision	Issue Date	Pages Revised	Date Inserted	By
0	05 May, 2006	None		

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05 May, 2006

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I LIMITATIONS

1. The maximum load in the AERO Design Ltd. Quick Release Cargo Basket is 200 lb. (90.9 kg).
2. Flight operations limited to VFR conditions with AERO Design Ltd. Cargo Basket installed.
3. Maximum lateral or rearward speed limited to 25 KIAS.
4. Maximum winds from aft quadrants limited to 25 KIAS for takeoff, landing or hover flight.
5. V_{NE} is 140 KIAS except when the V_{NE} of the basic rotorcraft is more restrictive, in which case the lower V_{NE} applies.

II NORMAL PROCEDURES

1. Pre-flight inspections:
 - a) Ensure that all cargo stored in the cargo basket does not extend outside the basket, is properly tied down and secured for flight.
 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward and aft end of the basket to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

IV PERFORMANCE

Climb performance may be reduced by up to 200 fpm.

Cruise speeds are reduced by approximately 10 kts. (11 mph).

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V WEIGHT AND BALANCE

1. The following weight and balance is for the low mounted quick release cargo basket configuration, installed in accordance with drawing 70101.

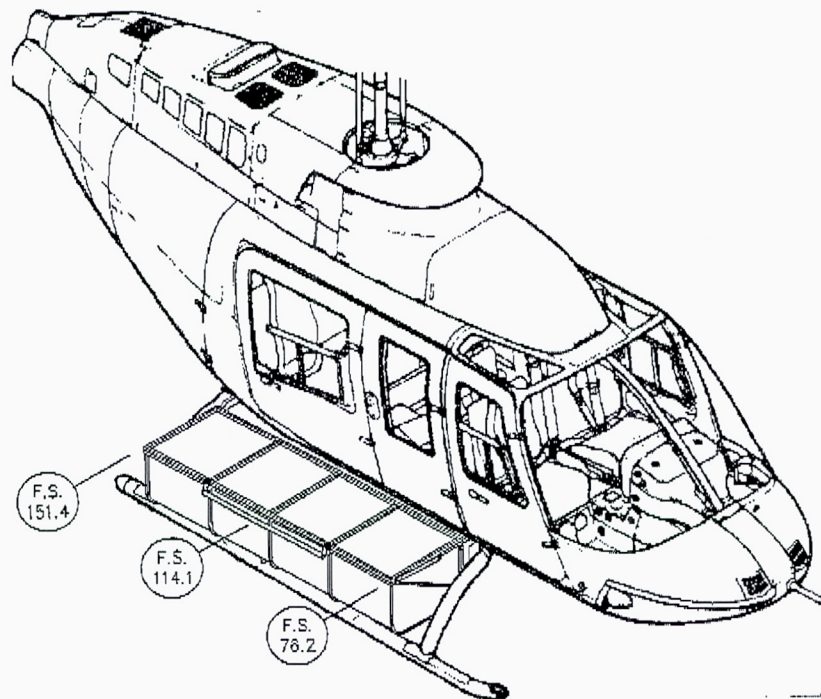


Figure 1 – Low Mounted Quick Release Cargo Basket Configuration

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Low Mounted Quick Release Cargo Basket Configuration

Item	Weight	Longitudinal		Lateral	
		Arm	Moment	Arm	Moment
Cargo Basket Only ¹	45.0 lb	114.1 in	5134 in*lb	38.5 in	1733 in*lb
	20.4 kg	2898 mm	59 122 mm*kg	978 mm	19 949 mm*kg
Cargo ² (MAX)	200 lb	114.1 in	22 820 in*lb	38.5 in	7700 in*lb
	90.9 kg	2898 mm	263 467 mm*kg	978 mm	88 900 mm*kg

¹ Weight and balance is for Cargo Basket only. Mounting beams and attachment provisions are not included since they should have been included in the basic rotorcraft weight and balance at time of initial installation.

² Longitudinal and Lateral moment arms are given only for the center of the Cargo Basket. Due to the length of the basket, some loading arrangements may require that actual moment arms be measured, to determine the correct moments about the center of gravity.

CAUTION:

It is possible to exceed lateral CG limits in some configurations. For example, with one pilot, no passengers, fuel tanks half empty, and the AERO Design Ltd. cargo basket loaded with 200 pounds of cargo, the Lateral CG of the rotorcraft may be out of limits.

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VI INSTALLATION / REMOVAL INSTRUCTIONS

The basket and beams are installed in accordance with drawing 70101. Removal of the basket leaving the beams in place is an approved configuration for flight. Logbook entry indicating installation or removal of basket and weight and balance amendment is required when basket is installed or removed.

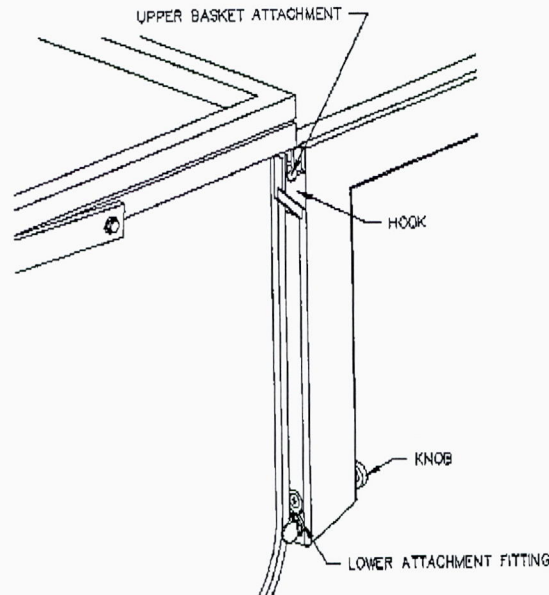



Figure 2 – Basket Attachment

1. Installation - Refer to Figure 2.
 1. Set basket upper attachment into hook on forward and aft beams.
 2. At forward end of basket, lift until lower attachment fitting can enter keyway. Push stop in and slide fitting down into keyway. Push down until locked. Repeat for aft end.
2. Removal - Refer to Figure 2.
 1. Pull knob at bottom end of forward beam and lift basket until lower attachment fitting is free of keyway. Keep upper basket attachment in hook on beam. Repeat for aft end.
 2. Lift basket off hooks and remove from helicopter.

FORM AE-100

DEPARTMENT OF TRANSPORT STATEMENT OF COMPLIANCE OF AIRCRAFT OR AIRCRAFT COMPONENTS WITH THE AIRWORTHINESS REQUIREMENTS		AE-100 No.: AE701 Initial Issue Date: 25 May, 2006 Revision: 0 Revision Date: Approval No.: SH00-48 Delegation No.: 290M Delegate Name: E. Burgoin Classification of Designee: Employer: AERO Design Ltd.	
Aircraft Mfr: Bell Aircraft Model: 407 Registration: All Eligible		Model Type Airplane <input type="checkbox"/> Helicopter <input checked="" type="checkbox"/> Appliance <input type="checkbox"/> Component <input type="checkbox"/>	
LIST OF APPROVED REPORTS AND DATA			
Document Number		Document Title	Compliance Status
DCL701 70101 DCL698-1 DCL698-2	Revision 0 Revision 0 Revision 0 Revision 0	Document Control List and all documents referred to therein Quick Release Cargo Basket Installation Document Control List for Quick Release Cargo Basket Document Control List for Beams	
		DATA APPROVED BY TRANSPORT CANADA	
FMS701.90 ICA698.90	Revision 0 Revision 0	Flight Manual Supplement Instructions for Continued Airworthiness	
CERTIFICATION UNDER THE AUTHORITY VESTED IN ME BY THE DEPARTMENT OF TRANSPORT, I HEREBY CERTIFY THAT THE DATA LISTED ABOVE AND ON THE ATTACHED SHEETS NUMBERED Nil HAVE BEEN EXAMINED IN ACCORDANCE WITH ESTABLISHED PROCEDURES AND FOUND TO COMPLY, TO THE BEST OF MY KNOWLEDGE AND BELIEF WITH THE PERTINENT COMPLIANCE REQUIRMENTS.			
I THEREFORE <input type="checkbox"/> RECOMMEND FOR APPROVAL OF THESE DATA <input checked="" type="checkbox"/> APPROVE THESE DATA			
 E. Burgoin, DAR 290M			

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
INSTALLATION DOCUMENTS		
70101	Quick Release Cargo Basket Installation	0
ICA698.90	Instructions for Continued Airworthiness	0
FMS701.90	Flight Manual Supplement	0
FABRICATION DOCUMENTS		
DCL698-1	Document Control List for Quick Release Cargo Basket	0
DCL698-2	Document Control List for Beams	0
ENGINEERING DOCUMENTS		
APPROVAL:	ORIGINAL DATE:	AERO DESIGN LTD. 2013 – 39 th Ave NE, Calgary, Alberta, T2E 6R7 Ph. (403) 250-8027 Fax. (403) 250-8333
	10 May, 2006	
	REVISION DATE:	Bell 407 Quick Release Cargo Basket Installation
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BELL 407

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT for the **INSTALLATION of the AERO DESIGN** **QUICK RELEASE CARGO BASKET**

Supplemental Type Certificate No. SH00-48

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 - b) Ensure that the lid of cargo basket is closed and secured.
 - c) Ensure the basket is locked in position on the beams. Pull up on the forward and aft end of the basket to check.

CAUTION

It is possible to exceed the lateral centre of gravity limits of the rotorcraft under some loading conditions. Pilots must ensure that lateral C of G is within limits when loading the basket.

III EMERGENCY PROCEDURES

No change from basic Approved Flight Manual.

CAUTION:

The rotorcraft glide angle is steeper than that of the basic helicopter when the AERO Design Ltd. Cargo Basket is installed.

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Climb performance may be reduced by up to 200 fpm.

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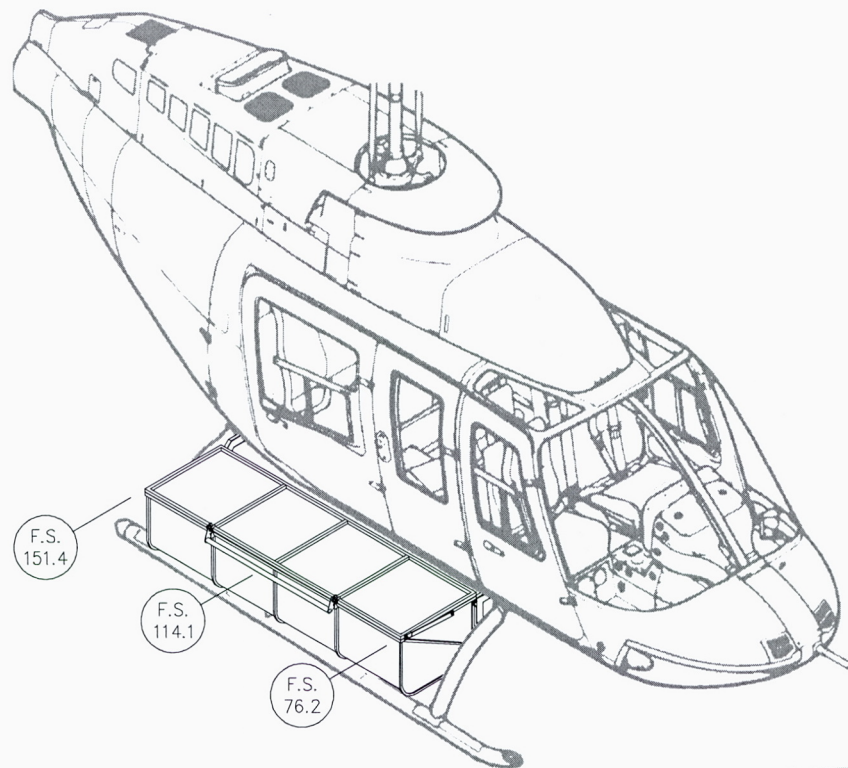


Figure 1 – Low Mounted Quick Release Cargo Basket Configuration

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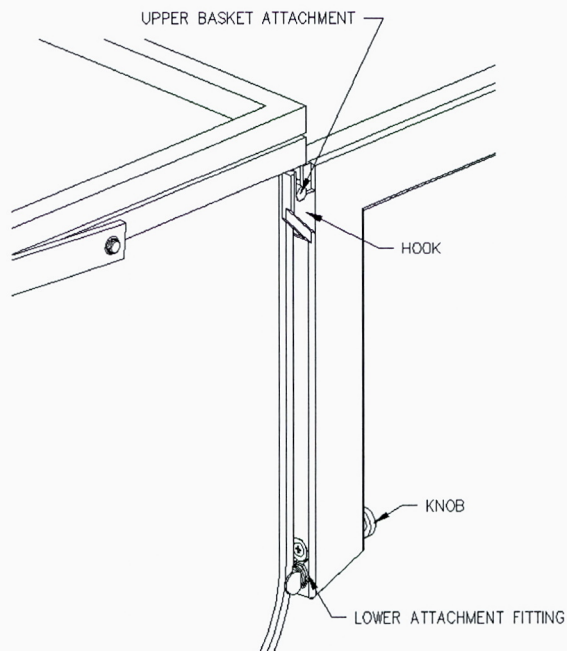


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